

IN THE CLAIMS:

Amendments to the Claims

Listing of Claims:

Please amend claim 5 and add new claims 35 - 37.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (canceled)

Claim 2 (canceled)

3. (previously presented) The defect candidate image displaying method according to Claim 5, wherein said information outputted at the outputting step includes data enabling the classification of the defect.

Claim 4 (canceled)

5. (currently amended) A defect candidate image displaying method , comprising the steps of:

irradiating either a charged particle or a light on a surface of a substrate on which a pattern is formed;

producing an image of said substrate surface by detecting any of a reflected light, secondary electron, reflected electron, transmitted electron, or absorbed electron generated from said substrate as a result of the irradiation;

producing a digital image by subjecting the produced image signal to A/D conversion;

comparing the digital image with a reference image and extracting a defect candidate;

outputting an actual image of the extracted defect candidate and data ~~comprising~~including the location of the defect candidate, via either a storage medium or a network;

storing said outputted actual image of the extracted defect candidate and data ~~comprising~~including the location of the defect candidate;

displaying on a screen in a map format the defect candidate location data outputted via either said storage medium or network; and

displaying on said screen a selected one of the stored actual images of the extracted defect candidates which is designated on said screen among the extracted defect candidate data displayed in said map format on said screen so that the selected one of the stored actual images is displayed together with said map format on said screen.

6. (previously presented) A defect candidate image displaying method, comprising the steps of:

detecting a defect candidate of a pattern by using an inspecting means;

outputting an actual image of the detected defect candidate and data including location information of the defect candidate;

storing said outputted defect candidate actual image and data including location information of the defect candidate in a memory;

displaying the stored defect candidate data on a screen in map format; and

displaying on said screen a selected one of the actual images of the stored defect candidates stored in said memory which is designated on said screen among the defect candidate data displayed in said map format on said screen so that the

selected one of the actual images is displayed together with said map format on said screen.

Claims 7-9 (canceled)

10. (previously presented) The defect candidate image displaying method according to Claim 6, further comprising the step of changing threshold value data on said screen, when detecting a defect candidate of said pattern using said inspecting means.

11. (previously presented) The defect candidate image displaying method according to Claim 10, wherein defect candidate location data displayed in map format is updated and displayed in accordance with said changed threshold value data.

12. (previously presented) The defect candidate image displaying method according to Claim 6, wherein, in said step for displaying on said screen, said defect candidates are classified using the actual images of defect candidates outputted via either said storage medium or network and data comprising the locations of the defect candidates, and location data of the classified defect candidates is identified by classification and displayed in map format on said screen.

13. (previously presented) The defect candidate image displaying method according to Claim 6, wherein, in said step for displaying on said screen, said defect candidates are classified using the actual images of defect candidates outputted via either said storage medium or network and data comprising the locations of the

defect candidates, and location data of the designated defect candidate from among these classified defect candidates is displayed in map format on said screen.

14. (previously presented) The defect candidate image displaying method according to Claim 13, wherein location data of defect candidates of a plurality of classifications designated from among said classified defect candidates is identified by said classifications and displayed in map format on said screen.

15. (previously presented) The defect candidate image displaying method according to Claim 13, further comprising the steps of processing said inputted actual image of said defect candidate and data comprising the location of this defect candidate by said processing means, and thereafter outputting via said network.

16. (previously presented) A defect candidate image displaying method, comprising the steps of:

imaging a substrate on which a pattern is formed;

processing an image obtained by said imaging to detect a defect candidate of said pattern;

outputting an actual image of said detected defect candidate and data including location information of the defect candidate via a network while carrying out the step of imaging said substrate and the step of detecting a defect candidate of said pattern;

storing said outputted actual image of said detected defect candidate and data including location information of the defect candidate in a memory; and

simultaneously displaying, on a screen, said actual defect candidate image and data including the location information of the defect candidate stored in said memory;

wherein, in the step of simultaneously displaying, said defect candidate data of location information is displayed in a map format on said screen and said actual defect candidate image which is simultaneously displayed on said screen is a selected one of the stored actual images of the detected defect candidates stored in said memory, which is designated on said screen among the defect candidate data displayed in said map format on said screen.

Claims 17-19 (canceled)

20. (previously presented) The defect candidate image displaying method according to Claim 16, further comprising the step of changing threshold value data for detecting a defect candidate of said pattern on said screen.

21. (previously presented) The defect candidate image displaying method according to Claim 20, wherein the location of the defect candidate displayed in map format is updated and displayed in accordance with said changed threshold value data.

22. (previously presented) The defect candidate image displaying method according to Claim 16, wherein, in the step of displaying on said screen, said defect candidates are classified using the actual images of defect candidates and data including location information of the defect candidates outputted via either said storage medium or network, and identically classified defect candidates are displayed in map format on said screen.

23. (previously presented) The defect candidate image displaying method according to Claim 16, wherein, in the step of displaying on said screen, said defect

candidates are classified using the actual images of defect candidates and data including location information of the defect candidates outputted via either said storage medium or network, and defect candidate location data designated from among the classified defect candidates is displayed in map format on said screen.

24. (previously presented) The defect candidate image displaying method according to Claim 23, wherein plural classes of defect candidates designated from among said classified defect candidates are displayed on said screen discriminately from each other in the map format.

25. (previously presented) The defect candidate image displaying method according to claim 5, wherein said map format is displayed at one portion of said screen and said displayed actual image of the defect candidate is simultaneously displayed at another portion of said screen.

26. (previously presented) The defect candidate image displaying method according to claim 25, wherein the one portion and the another portion of said screen are adjacent portions of said screen.

27. (previously presented) The defect candidate image displaying method according to claim 6, wherein said map format and said actual displayed image of the defect candidate are simultaneously displayed at positions adjacent one another on said screen.

28. (previously presented) The defect candidate image displaying method according to claim 27, wherein the one portion and the another portion of said screen are adjacent portions of said screen.

29. (previously presented) The defect candidate image displaying method according to claim 16, wherein said map format and said actual displayed image of the defect candidate are simultaneously displayed at positions adjacent one another on said screen.

30. (previously presented) The defect candidate image displaying method according to claim 29, wherein the one portion and the another portion of said screen are adjacent portions of said screen.

31. (previously presented) The defect candidate image displaying method according to claim 5, wherein the step of displaying on the screen includes displaying the defect candidate location data of the extracted defect candidates in the map format which was outputted and stored and the actual image of the extracted defect candidate which was outputted and stored.

32. (previously presented) The defect candidate image displaying method according to claim 5, wherein one system performs at least the steps of irradiating, producing an image of said substrate surface, producing a digital image, comparing, outputting an actual image of the extracted defect candidate and data comprising the location of the defect candidate for storage and display so as to enable display of the location of the extracted defect candidate data in map format and the actual image of the extracted defect candidate outputted by the one system.

33. (previously presented) The defect candidate image displaying method according to claim 6, wherein one system performs at least the steps of detecting a defect candidate of a pattern by using an inspecting means and outputting an actual

image of the detected defect candidate and data including location information of the defect candidate for storage and display so as to enable display of the location of the defect candidate data in map format and the actual image of the defect candidate outputted by the one system.

34. (previously presented) The defect candidate image displaying method according to claim 16, wherein one system performs at least the steps of imaging a substrate on which a pattern is formed, processing an image obtained by said imaging to detect a defect candidate of said pattern, and outputting an actual image of said detected defect candidate and data including location information of the defect candidate via a network while carrying out the step of imaging said substrate and the step of detecting a defect candidate of said pattern for storage and display so as to enable display of the location of the defect candidate data in map format and the actual image of the defect candidate outputted by the one system.

35. (new) The defect candidate image displaying method according to claim 5, wherein the step of displaying on said screen in said map format the defect candidate location data outputted via either said storage medium or network includes displaying the defect candidate location data in said map format with a selected magnification of a variable magnification on said screen together with the selected one of the stored actual images.

36. (new) The defect candidate image displaying method according to claim 6, wherein said step of displaying the stored candidate data on said screen in map format includes displaying the storage defect candidate data in map format with a selected magnification of a variable magnification on said screen together with the selected one of the actual image.

37. (new) The defect candidate image displaying method according to claim 16, wherein, in the step of simultaneous displaying, displaying said defect candidate data of location information in said map format with a selected magnification of a variable magnification on said screen together with said actual defect candidate image.